PREPARED BY: SM CHECKED BY: DATE: 6/23/2003

PROJECT: California High Speed Train EIR/EIS

Storage Yard & Maintenance Facility

Sacramento

# CONCEPTUAL CONSTRUCTION COST ESTIMATE

Item No.	DESCRIPTION	UNIT	UNIT COST (2003\$)	QUANTITY	Estimated Cost	Category Total Cos
1	Site Clearing					
	Site Clearing	HECT	\$7,700.00	9.40	\$72,380	
	Site Demolition	HECT	\$800,000.00	9.40	\$7,520,000	\$7,592,38
2	Earthwork	_				\$1,392,36
	Grading Site- Cut & Fill 1M Average	M3	\$7.50	94,000	\$705,000	
						\$705,00
3	Paving & Surfacing					
	Driveway / Service Road	M2 M2	\$40.00	16,800	\$672,000	
	Paved Area/Parking Spaces  Maint. Path	M	\$40.00 \$150.00	20,000 3,200	\$800,000 \$480,000	
	THE TOTAL TOTAL		\$100.00	0,200	ψ100,000	\$1,952,00
4	Piped Utilities					, , , , , ,
	Drainage & Sanitary- track drainage	M	\$164.00	9,200	\$1,508,800	
	Drainage & Sanitary- sewer system- allow	M	\$260.00	1,500	\$390,000	
	Connection to Exist. Lines Sanitary Pump Station	Allow	\$100,000.00	1	\$100,000 \$80,000	
	Oil/ Water Separator	EA EA	\$80,000.00 \$135,000.00	1	\$135,000	
	Exist. Utility Lines Relocation/Protection	HECT	\$2,100,000.00	9.40	\$19,740,000	
	Water Distribution- allow	Allow	\$200,000.00	1	\$200,000	
						\$22,153,80
5	Site Improvements					
	Alum. Chain Link Fence	M	\$110.00	4,000	\$440,000	
	Signs Landacoping	Allow	\$30,000.00	1	\$30,000	1
	Landscaping	Allow	\$100,000.00	1	\$100,000	\$570,00
6	Track work					\$570,00
	Ballasted Track Incl. Ballast and subballast	M	\$430.00	9,200	\$3,956,000	
	Turnouts, no. 15 with Conc. Ties	EA	\$140,000.00	11	\$1,540,000	
	Diamond Crossover, no. 15 with Conc. Ties	EA	\$600,000.00	2	\$1,200,000	
	Heavy Duty Rubber Grade Crossing	Allow	\$300,000.00	1	\$300,000	ec one or
7	Yard Electrical Work	+				\$6,996,00
	Site Lighting, Distribution, High Mast Poles	EA	\$35,000.00	25.00	\$875,000	
	Electrical service to yard 480v	Allow	\$500,000.00	1	\$500,000	
	CCTV & Security System	Allow	\$200,000.00	1	\$200,000	
	Communication System	Allow	\$300,000.00	1	\$300,000	
	Transline Dawer	_				\$1,875,00
	Traction Power Double Ended SS	EA	\$5,000,000.00	1.0	\$5,000,000	
	OCS Incl. Hardware, Poles & Foundation	M	\$360.00	9,200	\$3,312,000	
						\$8,312,00
9	Train Control					
	Yard Train Control	Allow	\$1,500,000.00	1	\$1,500,000	£4 E00 00
10	Service and Inspection Facility Incl. Electrical & Mechanical Work	_				\$1,500,00
10	Service & Inspection Facility  Service & Inspection Facility	M2	\$1,800.00	2,700	\$4,860,000	
	Inspection Pit	M	\$2,300.00	500	\$1,150,000	
	Inspection Pit Rail Support	M	\$945.00	500	\$472,500	
	Car Wash Building	M2 M2	\$1,300.00 \$1,800.00	1,000 700	\$1,300,000 \$1,260,000	
	Wheel Repair Facility	M2	\$1,800.00	700	\$1,260,000	
						\$9,042,50
11a	Maintenance Shop Equipment, Tools and Supplies-					
	Storage Equipment	LS	\$280,000.00	1	\$280,000	
	Shop Equipment Shop Work Station	LS LS	\$600,000.00	1	\$600,000	
	Cleaning Equipment		\$60,000,00			
	Car Component Repair & Test Equipment		\$60,000.00 \$80,000.00	1	\$60,000	
		LS LS	\$80,000.00 \$250,000.00	1 1 1	\$60,000 \$80,000 \$250,000	
	Wheel Truing Machine	LS LS Ea.	\$80,000.00 \$250,000.00 \$1,500,000.00	1 1 1	\$60,000 \$80,000 \$250,000 \$1,500,000	
	Wheel Truing Machine Welding Equipment	LS LS Ea. LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00	1 1 1 1	\$60,000 \$80,000 \$250,000 \$1,500,000 \$60,000	
	Wheel Truing Machine Welding Equipment Battery Equipment	LS LS Ea.	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00 \$25,000.00	1 1 1 1 1 1	\$60,000 \$80,000 \$250,000 \$1,500,000 \$60,000 \$25,000	
	Wheel Truing Machine Welding Equipment	LS LS Ea. LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00	1 1 1 1	\$60,000 \$80,000 \$250,000 \$1,500,000 \$60,000	
	Wheel Truing Machine Welding Equipment Battery Equipment Pretab. Storage Buildings Traveling Manifits Material Lift	LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00 \$25,000.00 \$40,000.00 \$200,000.00	1 1 1 1 1 1 1 1 1	\$60,000 \$80,000 \$250,000 \$1,500,000 \$60,000 \$25,000 \$40,000 \$200,000	
	Wheel Truing Machine Welding Equipment Battery Equipment Perfab. Storage Buildings Traveling Manifits Material Lift Bridge Crane - Ston Capacity	LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00 \$25,000.00 \$40,000.00 \$30,000.00 \$40,000.00	1 1 1 1 1 1 1 1 1 1	\$60,000 \$80,000 \$250,000 \$1,500,000 \$60,000 \$25,000 \$40,000 \$200,000 \$30,000	
	Wheel Truing Machine Welding Equipment Battery Equipment Prefab. Storage Buildings Traveling Manifest Material Lift Bridge Crane - 3ton Capacity Jib Cranes-Various Capacity	LS LS Ea. LS LS LS LS LS LS LS LS LS Ea. Ea.	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00 \$25,000.00 \$40,000.00 \$200,000.00 \$30,000.00 \$40,000.00 \$20,000.00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 2	\$60,000 \$80,000 \$250,000 \$1,500,000 \$60,000 \$25,000 \$40,000 \$30,000 \$40,000	
	Wheel Truing Machine Welding Equipment Battery Equipment Perfab. Storage Buildings Traveling Manifits Material Lift Bridge Craine - Storn Capacity Jib Cranes- Various Capacity Forklifs	LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00 \$25,000.00 \$40,000.00 \$30,000.00 \$40,000.00	1 1 1 1 1 1 1 1 1 1	\$60,000 \$80,000 \$250,000 \$1,500,000 \$60,000 \$25,000 \$40,000 \$200,000 \$30,000	
	Wheel Truing Machine Welding Equipment Battery Equipment Prefab. Storage Buildings Traveling Manifest Material Lift Bridge Crane - 3ton Capacity Jib Cranes-Various Capacity	LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00 \$25,000.00 \$40,000.00 \$200,000.00 \$30,000.00 \$30,000.00 \$40,000.00 \$30,000.00 \$30,000.00 \$30,000.00	1 1 1 1 1 1 1 1 1 1 1 1 2	\$60,000 \$80,000 \$250,000 \$1,500,000 \$25,000 \$40,000 \$200,000 \$30,000 \$40,000 \$40,000 \$41,000	
	Wheel Truing Machine Welding Equipment Battery Equipment Battery Equipment Prefalb. Storage Buildings Traveling Manifts Material Lift Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forklifts Tools & Supplies	LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00 \$25,000.00 \$40,000.00 \$200,000.00 \$30,000.00 \$30,000.00 \$40,000.00 \$30,000.00 \$30,000.00 \$30,000.00	1 1 1 1 1 1 1 1 1 1 1 1 2	\$60,000 \$80,000 \$250,000 \$1,500,000 \$25,000 \$40,000 \$200,000 \$30,000 \$40,000 \$40,000 \$41,000	
11c	Wheel Truing Machine Welding Equipment Battery Equipment Prefab. Storage Buildings Traveling Manifts Material Lift Bridge Crane - 3ton Capacity Jib Cranes- Various Capacity Forklifts Tools & Supplies  Car Wash	LS LS Ea. LS Allow	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00 \$25,000.00 \$40,000.00 \$200,000.00 \$30,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$200,000.00 \$40,000.00 \$200,000.00 \$40,000.00 \$200,000.00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$60,000 \$80,000 \$250,000 \$1,500,000 \$60,000 \$25,000 \$40,000 \$30,000 \$40,000 \$40,000 \$140,000	
11c	Wheel Truing Machine Welding Equipment Battery Equipment Prefab. Storage Buildings Traveling Manifits Material Lift Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forkiffs Tools & Supplies  Car Wash	LS LS LS Ea. LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$1,500,000.00 \$60,000.00 \$25,000.00 \$40,000.00 \$30,000.00 \$30,000.00 \$40,000.00 \$10,000.00 \$20,000.00 \$10,000.00 \$20,000.00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$60,000 \$80,000 \$15,000,000 \$60,000 \$60,000 \$25,000 \$40,000 \$40,000 \$40,000 \$40,000 \$40,000 \$140,000 \$100,000	
11c	Wheel Truing Machine Welding Equipment Battery Equipment Prefab. Storage Bulldings Traveling Manifits Material Lift Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forkfits Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer	LS LS Ea. LS Allow	\$80,000.00 \$250,000.00 \$1,500,000.00 \$60,000.00 \$25,000.00 \$40,000.00 \$200,000.00 \$30,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$200,000.00 \$40,000.00 \$200,000.00 \$40,000.00 \$200,000.00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	\$60,000 \$80,000 \$250,000 \$1,500,000 \$60,000 \$25,000 \$40,000 \$30,000 \$40,000 \$40,000 \$140,000	
11c	Wheel Truing Machine Welding Equipment Battery Equipment Prefab. Storage Buildings Traveling Manifts Material Lift Bidge Crane - Ston Capacity Jib Cranes- Various Capacity Forklifts Tools & Supplies  Car Wash Storage Car Wash	LS LS Ea. LS	\$80,000.00 \$250,000.00 \$1,500.000.00 \$1,500.000.00 \$25,000.00 \$25,000.00 \$40,000.00 \$200,000.00 \$30,000.00 \$40,000.00 \$30,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00	1 1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$255,000 \$1,500,000 \$25,000 \$40,000 \$20,000 \$4	
11c	Wheel Truing Machine Welding Equipment Battery Equipment Perfeat. Storage Buildings Traveling Manifits Material Litt Bridge Crane - Storn Capacity Jib Cranes- Various Capacity Forklits Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing	LS LS LS Ea LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$1,500,000.00 \$25,000.00 \$25,000.00 \$40,000.00 \$30,000.00 \$30,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	
11c	Wheel Truing Machine Welding Equipment Battery Equipment Battery Equipment Prefab. Storage Buildings Traveling Manilist Material Lift Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forklifts Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation	LS LS LS Ea LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$1,500,000.00 \$25,000.00 \$25,000.00 \$40,000.00 \$30,000.00 \$30,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	
1110	Wheel Truing Machine Welding Equipment Battery Equipment Perfeat. Storage Buildings Traveling Manifits Material Litt Bridge Crane - Storn Capacity Jib Cranes- Various Capacity Forklits Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing	LS LS LS Ea LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$1,500,000.00 \$25,000.00 \$25,000.00 \$40,000.00 \$30,000.00 \$30,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,00
1110	Wheel Truing Machine Welding Equipment Battery Equipment Battery Equipment Prefab. Storage Buildings Traveling Manilist Material Lift Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forklifts Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation	LS LS LS Ea LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$1,500,000.00 \$25,000.00 \$25,000.00 \$40,000.00 \$30,000.00 \$30,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	
1110	Wheel Truing Machine Welding Equipment Battery Equipment Prefab. Storage Buildings Traveling Manifits Material Lift Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forkifits Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation Excluded	LS LS LS Ea LS	\$80,000.00 \$250,000.00 \$1,500,000.00 \$1,500,000.00 \$25,000.00 \$25,000.00 \$40,000.00 \$30,000.00 \$30,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00 \$40,000.00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,00 \$4,55,170,00
1110	Wheel Truing Machine Welding Equipment Battery Equipment Perlab. Storage Buildings Traveling Marifits Material Llit Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forkilits Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation Excluded  Sub-Total Mobilization & Indirect Field Cost	LS LS LS Ea LS	\$80,000,00 \$250,000,00 \$1,500,000,00 \$60,000,00 \$25,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,00 \$ \$65,170,00 \$9,775,50
111c	Wheel Truing Machine Welding Equipment Battery Equipment Battery Equipment Perfab. Storage Buildings Traveling Marilist Material Lift Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forklifts Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation Excluded  Sub-Total Mobilization & Indirect Field Cost Subtotal- Construction Cost- Base (year 2003 dollars)	LS LS LS Ea LS	\$80,000,00 \$250,000,00 \$1,500,000,00 \$60,000,00 \$25,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,00 \$ \$65,170,00 \$9,775,50
111c	Wheel Truing Machine Welding Equipment Battery Equipment Battery Equipment Prefab. Storage Buildings Traveling Manifist Material Lift Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forkifis Tools & Supplies  Car Wash Storage Cart Wash Equipment Installation & Plumbing Environmental Mitigation Excluded  Sub-Total Mobilization & Indirect Field Cost Subtotal- Construction Cost- Base (year 2003 dollars) Contingencies	LS LS LS Ea LS	\$80,000,00 \$250,000,00 \$1,500,000,00 \$60,000,00 \$25,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,01 \$4,469,01 \$65,170,01 \$9,775,51
11c	Wheel Truing Machine Welding Equipment Battery Equipment Perfeat. Storage Buildings Traveling Manifes Material Litt Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forklits Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation Excluded  Sub-Total Mobilization & Indirect Field Cost Subtotal- Construction Cost- Base (year 2003 dollars) Contingencies Escalation to Midpoint of Construction- not included	LS LS LS Ea LS	\$80,000,00 \$250,000,00 \$1,500,000,00 \$60,000,00 \$25,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,0 \$65,170,0 \$9,775,5
1110	Wheel Truing Machine Welding Equipment Battery Equipment Battery Equipment Prefab. Storage Buildings Traveling Marifist Material Lift Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forklifts Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation Excluded  Sub-Total Mobilization & Indirect Field Cost Subtotal- Construction Cost- Base (year 2003 dollars) Contingencies Escalation to Midpoint of Construction- not included Right of way Acquisition	LS LS LS Ea LS	\$80,000,00 \$250,000,00 \$1,500,000,00 \$60,000,00 \$25,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,01 \$4,469,01 \$65,170,01 \$9,775,51
11c	Wheel Truing Machine Welding Equipment Battery Equipment Battery Equipment Fredab. Sucrage Buildings Traveling Manillat Material Lift Bridge Crane - Ston Capacity Jib Cranes- Vanious Capacity Forkilfts Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation Excluded  Sub-Total  Mobilization & Indirect Field Cost Subtotal- Construction Cost- Base (year 2003 dollars) Contingencies Escalation to Micpoint of Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated)	LS LS LS Ea LS	\$80,000,00 \$250,000,00 \$1,500,000,00 \$60,000,00 \$25,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00	1 1 1 1 1 1 1 1 1 1 2 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,01 \$4,469,01 \$65,170,01 \$9,775,51
1110	Wheel Truing Machine Welding Equipment Battery Equipment Perfeat. Storage Buildings Travelling Maritis Material Litt Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forklits Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Cart Wash Equipment Installation & Plumbing  Environmental Mitigation Excluded  Sub-Total  Mobilization & Indirect Field Cost Subtotal- Construction Cost- Base (year 2003 dollars) Canting Sub-Construction Cost-Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated) Project Conceptual & Preliminary Engineering	LS LS LS Ea LS	\$80,000,00 \$250,000,00 \$1,500,000,00 \$60,000,00 \$25,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00	1 1 1 1 1 1 1 1 1 1 2 4 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,01 \$4,469,01 \$65,170,01 \$9,775,51
1116	Wheel Truing Machine Welding Equipment Battery Equipment Perfeab. Storage Buildings Traveling Manifits Material Litt Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forklits Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation Excluded  Sub-Total Mobilization & Indirect Field Cost Subtotal- Construction Cost- Base (year 2003 dollars) Contingencies Escalation to Midpoint of Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated) Project Conceptual & Preliminary Engineering Final Engineering Design Cost	LS LS LS Ea LS	\$80,000,00 \$250,000,00 \$1,500,000,00 \$60,000,00 \$25,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00	1 1 1 1 1 1 1 1 1 1 2 4 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,01 \$4,469,01 \$65,170,01 \$9,775,51
11c	Wheel Truing Machine Welding Equipment Battery Equipment Prefab. Storage Buildings Traveling Manifits Material Lift Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forklifts Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation Excluded  Sub-Total  Mobilization & Indirect Field Cost Subtotal- Construction Cost- Base (year 2003 dollars) Contingencies Escalation to Midpoint of Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated) Project Conceptual & Preliminary Engineering Final Engineering Design Cost Construction Management & Inspection Costs @ 10%	LS LS LS Ea LS	\$80,000,00 \$250,000,00 \$1,500,000,00 \$60,000,00 \$25,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00	1 1 1 1 1 1 1 1 1 1 2 4 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,00 \$4,55,170,00
1110	Wheel Truing Machine Welding Equipment Battery Equipment Perfeab. Storage Buildings Traveling Manifits Material Litt Bridge Crane - Ston Capacity Jib Cranes- Various Capacity Forklits Tools & Supplies  Car Wash Storage Central Vacuum Cleaning system Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing Environmental Mitigation Excluded  Sub-Total Mobilization & Indirect Field Cost Subtotal- Construction Cost- Base (year 2003 dollars) Contingencies Escalation to Midpoint of Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated) Project Conceptual & Preliminary Engineering Final Engineering Design Cost	LS LS LS Ea LS	\$80,000,00 \$250,000,00 \$1,500,000,00 \$60,000,00 \$25,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$40,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00 \$20,000,00	1 1 1 1 1 1 1 1 1 1 2 4 4 1	\$60,000 \$80,000 \$1,500,000 \$66,000 \$25,000 \$40	\$4,469,00 \$ \$65,170,00 \$9,775,50

Exclusions:
Real Estate
Central Operating Control System
Escalation to Mid-point of Construction
Environmental Mitigation
Engineering, CM, Inspection & owner's cost of administration
Contingencies

PREPARED BY: SM CHECKED BY: DATE: 6/23/2003 PARSONS BRINCKERHOFF PROJECT: California High Speed Train EIR/EIS

Storage Yard & Maintenance Facility

San Diego

# CONCEPTUAL CONSTRUCTION COST ESTIMATE

14						
Item No.	DESCRIPTION	UNIT	UNIT COST (2003\$)	QUANTITY	Estimated Cost	Category Total Cos
1	Site Clearing Site Clearing	HECT	\$7,700.00	14.70	\$113,190	
	Site Demolition	HECT	\$800,000.00	14.70		
						\$11,873,190
2	Earthwork Grading Site- Cut & Fill 1 M Average	M3	\$7.50	147,000	\$1,102,500	
	Silt Fence	М	\$10.00	4,100	\$41,000	
_						\$1,143,500
3	Paving & Surfacing Driveway / Service Road- Along Yard	M2	\$40.00	16,800	\$672,000	
	Paved Area/Parking Spaces	M2	\$40.00	20,000	\$800,000	
	Maint. Path	М	\$150.00	3,200	\$480,000	
4	Piped Utilities					\$1,952,000
	Drainage & Sanitary- Track Drainage	М	\$164.00	16,500	\$2,706,000	
	Drainage & Sanitary- sewer system- allow	M	\$260.00	1,500	\$390,000	
	Connection to Exist. Lines Sanitary Pump Station	Allow EA	\$100,000.00 \$80,000.00	1	\$100,000 \$80,000	
	Oil/ Water Separator	EA	\$135,000.00	1	\$135,000	
	Exist. Utility Lines Relocation/Protection	HECT	\$2,100,000.00	14.70	\$30,870,000	
	Water Distribution- allow	Allow	\$200,000.00	1	\$200,000	\$34,481,00
5	Site Improvements					\$34,461,00
	Alum. Chain Link Fence	М	\$110.00	4,100	\$451,000	
	Signs Landonning	Allow	\$30,000.00	1	\$30,000	
	Landscaping	Allow	\$100,000.00	1	\$100,000	\$581,00
6	Track work	<u> </u>				ψ301,00
	Ballasted Track Incl. Ballast and subballast	M	\$430.00	16,500	\$7,095,000	
	Turnouts, no. 15 with Conc. Ties Diamond Crossover, no. 15 with Conc. Ties	EA EA	\$140,000.00 \$600,000.00	23	\$3,220,000 \$1,200,000	
	Heavy Duty Rubber Grade Crossing	Allow	\$300,000.00	1	\$300,000	
	Vand Flankrigel Week					\$11,815,00
	Yard Electrical Work Site Lighting, Distribution, High Mast Poles	EA	\$35,000.00	40.00	\$1,400,000	
	Electrical service to yard 480v	Allow	\$500,000.00	1	\$500,000	
	CCTV & Security System	Allow	\$200,000.00	1	\$200,000	
	Communication System	Allow	\$300,000.00	-	\$300,000	\$2,400,00
8	Traction Power					, , ,
	Substation OCS Incl. Hardware, Poles & Foundation	EA M	\$5,000,000.00 \$360.00	1.0 16,500	\$5,000,000 \$5,940,000	
	OCS IIICI. Halloware, Poles & Pouridation	IVI	\$300.00	10,300	\$5,540,000	\$10,940,000
9	Train Control					
	Yard Train Control	Allow	\$2,500,000.00	1	\$2,500,000	\$2,500,000
10	Service and Inspection Facility Incl. Electrical & Mechanical Work					\$2,500,000
	Service & Inspection Facility	M2	\$1,800.00	5,500	\$9,900,000	
	Inspection Pit Inspection Pit Rail Support	M M	\$2,300.00 \$945.00	1,000	\$2,300,000 \$945,000	
	Train Wash Building	M2	\$1,300.00	1,000	\$1,300,000	
	Wheel Repair Facility	M2	\$1,800.00	700	\$1,260,000	
						\$15,705,00
1a	Maintenance Shop Equipment, Tools and Supplies-					
	Storage Equipment Shop Equipment	LS LS	\$280,000.00 \$600,000.00	1	\$280,000 \$600,000	
	Shop Work Station	LS	\$60,000.00	1	\$60,000	
	Cleaning Equipment	LS	\$80,000.00	1	\$80,000	
	Car Component Repair & Test Equipment Wheel Truing Machine	LS Ea.	\$250,000.00 \$1,500,000.00	1	\$250,000 \$1,500,000	
	Welding Equipment	LS	\$60,000.00	1	\$60,000	
	Battery Equipment Prefab. Storage Buildings	LS LS	\$25,000.00 \$40.000.00	1	\$25,000 \$40,000	
	Pretab. Storage Buildings Traveling Manlifts	LS	\$40,000.00	1	\$40,000	
	Material Lift	LS	\$30,000.00	1	\$30,000	
	Bridge Crane - 3ton Capacity Jib Cranes- Various Capacity	Ea Ea.	\$40,000.00 \$20,000.00	1 2	\$40,000 \$40,000	
	Forklifts	Ea.	\$35,000.00	4	\$140,000	
	Tools & Supplies	Allow	\$100,000.00	1	\$100,000	
1b	Car Wash	1	+		-	
	Storage	LS	\$4,000.00	1	\$4,000	
	Central Vacuum Cleaning system Steam Cleaner Pressure Washer	LS LS	\$40,000.00 \$80,000.00	1	\$40,000 \$80,000	
	Steam Cleaner Pressure Washer Car Wash Equipment Installation & Plumbing	LS	\$900,000.00	1	\$80,000	
						\$4,469,00
	Environmental Mitigation Excluded	<del>                                     </del>	+			
	LAGUAGA				1	\$
	Sub-Total					\$97,860,000
	Mobilization & Indirect Field Cost		15%			\$14,679,00
	Subtotal- Construction Cost- Base (year 2003 dollars)					\$112,540,000
		<u> </u>	<u> </u>			
	Contingencies					
	Escalation to Midpoint of Construction- not included				Ī	
	Escalation to Midpoint of Construction- not included Right of way Acquisition					
	Escalation to Midpoint of Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated)					
	Escalation to Midpoint of Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated) Project Conceptual & Preliminary Engineering					
	Escalation to Midpoint of Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated)					
	Escalation to Midpoint of Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated) Project Conceptual & Preliminary Engineering					
	Escalation to Midpoint of Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated) Project Conceptual & Preliminary Engineering Final Engineering Design Cost Construction Management & Inspection Costs @ 10%					
	Escalation to Midpoint of Construction- not included Right of way Acquisition Subtotal- Construction Cost (Not Escalated) Project Conceptual & Preliminary Engineering Final Engineering Design Cost					

Exclusions:
Real Estate
Central Operating Control System
Escalation to Mid-point of Construction
Environmental Mitigation
Engineering, CM, Inspection & owner's cost of administration
Contingencies

PROJECT: California High Speed Train EIR/EIS

Storage Yard & Maintenance Facility

Bay Area (Los Banos)

### CONCEPTUAL CONSTRUCTION COST ESTIMATE

Item No.	DESCRIPTION	UNIT	UNIT COST (2003\$)	QUANTITY	Estimated Cost	Category Total Cost
1	Site Clearing					
	Site Clearing	HECT	\$7,700.00	10.00	\$77,000	
	Site Demolition	HECT	\$800,000.00	10.00	\$8,000,000	\$8,077,00
2	Earthwork					\$8,077,000
	Grading Site- Cut & Fill 1M Average	M3	\$7.50	100,000	\$750,000	\$750.00°
3	Paving & Surfacing					\$750,000
	Driveway / Service Road	M2	\$40.00	16,800	\$672,000	
	Paved Area/Parking Spaces Maint, Path	M2 M	\$40.00 \$150.00	20,000 3,200	\$800,000 \$480,000	
	Want. Fau	IVI	\$130.00	3,200	\$400,000	\$1,952,00
4	Piped Utilities  Drainage & Sanitary- track drainage	М	6404.00	40.400	\$1,984,400	
	Drainage & Sanitary- track drainage  Drainage & Sanitary- sewer system- allow	M	\$164.00 \$260.00	12,100 1,500	\$390,000	
	Connection to Exist. Lines	Allow	\$100,000.00	1	\$100,000	
	Sanitary Pump Station Oil/ Water Separator	EA EA	\$80,000.00	1	\$80,000	
	Exist. Utility Lines Relocation/Protection	HECT	\$135,000.00 \$2,100,000.00	10.00	\$135,000 \$21,000,000	
	Water Distribution- allow	Allow	\$200,000.00	1	\$200,000	
	Site Improvements					\$23,889,40
	Site Improvements Alum. Chain Link Fence	М	\$110.00	2,000	\$220,000	
	Signs	Allow	\$30,000.00	1	\$30,000	
	Landscaping	Allow	\$100,000.00	1	\$100,000	\$350,00
6	Track work		<del>                                     </del>			4000,00
	Ballasted Track Incl. Ballast and subballast	М	\$430.00	12,100	\$5,203,000	
	Turnouts, no. 15 with Conc. Ties Diamond Crossover, no. 15 with Conc. Ties	EA EA	\$140,000.00 \$600,000.00	27 3	\$3,780,000 \$1,800,000	
	Heavy Duty Rubber Grade Crossing	Allow	\$300,000.00	1	\$300,000	
						\$11,083,00
7	Yard Electrical Work Site Lighting, Distribution, High Mast Poles	EA	\$35,000.00	27.00	\$945,000	
	Electrical service to yard 480v	Allow	\$500,000.00	1	\$500,000	
	CCTV & Security System	Allow	\$200,000.00	1	\$200,000	
	Communication System	Allow	\$300,000.00	1	\$300,000	\$1,945,00
8	Traction Power					\$1,343,000
	Double Ended SS	EA	\$5,000,000.00	1.0	\$5,000,000	
	OCS Incl. Hardware, Poles & Foundation	М	\$360.00	12,100	\$4,356,000	\$9,356,000
9	Train Control					\$3,330,000
	Yard Train Control	Allow	\$3,000,000.00	1	\$3,000,000	
10	Service and Inspection Facility Incl. Electrical & Mechanical Work					\$3,000,000
- 10	Service & Inspection Facility  Service & Inspection Facility	M2	\$1,800.00	2,600	\$4,680,000	
	Inspection Pit	M	\$2,300.00	430	\$989,000	
	Inspection Pit Rail Support Car Wash Building	M M2	\$945.00 \$1,300.00	430 1,000	\$406,350 \$1,300,000	
	Wheel Repair Facility	M2	\$1,800.00	700	\$1,260,000	
11a	Maintenance Shop Equipment, Tools and Supplies-					\$8,635,35
	Storage Equipment	LS	\$280,000.00	1	\$280,000	
	Shop Equipment	LS	\$600,000.00	1	\$600,000	
	Shop Work Station Cleaning Equipment	LS LS	\$60,000.00 \$80,000.00	1	\$60,000 \$80,000	
	Car Component Repair & Test Equipment	LS	\$250,000.00	1	\$250,000	
	Wheel Truing Machine	Ea.	\$1,500,000.00	1	\$1,500,000	
	Welding Equipment Battery Equipment	LS LS	\$60,000.00 \$25,000.00	1	\$60,000 \$25,000	
	Prefab. Storage Buildings	LS	\$40,000.00	1	\$40,000	
	Traveling Manlifts	LS	\$200,000.00	1	\$200,000	
	Material Lift  Bridge Crane - 3ton Capacity	LS Ea	\$30,000.00 \$40,000.00	1	\$30,000 \$40,000	
	Jib Cranes- Various Capacity	Ea.	\$20,000.00	2	\$40,000	
	Forklifts Toole & Supplies	Ea. Allow	\$35,000.00	4	\$140,000 \$100,000	
	Tools & Supplies	AllOW	\$100,000.00	1	\$100,000	
11c	Car Wash		,			
	Storage Central Vacuum Cleaning system	LS LS	\$4,000.00 \$40,000.00	1	\$4,000 \$40,000	
	Steam Cleaner Pressure Washer	LS	\$80,000.00	1	\$80,000	
	Car Wash Equipment Installation & Plumbing	LS	\$900,000.00	1	\$900,000	
	Environmental Mitigation	1	+			\$4,469,00
	Excluded Excluded		+			
						\$
	Sub-Total		450/			\$73,510,00
	Mobilization & Indirect Field Cost  Subtotal- Construction Cost- Base (year 2003 dollars)		15%			\$11,026,50 \$84,540,00
	Contingencies		+			\$04,540,00
	Escalation to Midpoint of Construction- not included					
	Right of way Acquisition		† †			
	Subtotal- Construction Cost (Not Escalated)		1			
-	Project Conceptual & Preliminary Engineering					
	Final Engineering Design Cost	1				
	Construction Management & Inspection Costs @ 10%					
	Construction Management & Inspection Costs @ 10% Field Changed Condition Owner Administration & Engineering					

Exclusions:
Real Estate
Central Operating Control System
Escalation to Mid-point of Construction
Engineering, CM, Inspection & owner's cost of administration
Contingencies

PROJECT: California High Speed Train EIR/EIS

Storage Yard & Main Repair Facility Central Valley

### CONCEPTUAL CONSTRUCTION COST ESTIMATE

Item No.	DESCRIPTION	UNIT	UNIT COST (2003\$)	QUANTITY	Estimated Cost	Category Total Cost
1	Site Clearing					
	Site Clearing	HECT	\$7,700.00	39.84	\$306,768	
	Site Demolition	HECT	\$800,000.00	39.84	\$31,872,000	\$32,178,768
2	Earthwork					
	Grading Site- Cut & Fill 1M Average Silt Fence	M3 M	\$7.50 \$10.00	398,400 5,200	\$2,988,000 \$52,000	
			,	.,	,	\$3,040,000
3	Paving & Surfacing Driveway / Service Road	M2	\$40.00	20,800	\$832,000	
	Paved Area/Parking Spaces -Allow	M2	\$40.00	30,000	\$1,200,000	
- 1	Piped Utilities					\$2,032,000
	Drainage & Sanitary- track drainage	М	\$164.00	25,300	\$4,149,200	
	Drainage & Sanitary- sewer system- allow	M	\$260.00	3,000	\$780,000	
	Connection to Exist. Lines Sanitary Pump Station	Allow EA	\$100,000.00 \$80,000.00	1	\$100,000 \$80,000	
	Oil/ Water Separator	EA	\$135,000.00	1	\$135,000	
	Exist. Utility Lines Relocation/Protection Water Distribution- allow	HECT Allow	\$2,100,000.00 \$200,000.00	39.84	\$83,664,000 \$200,000	
	Water Distribution allow	Allow	\$200,000.00		\$200,000	\$89,108,200
5	Site Improvements		A440.00	F 000	<b>A</b> E70.000	
	Alum. Chain Link Fence Signs	M Allow	\$110.00 \$40,000.00	5,200 1	\$572,000 \$40,000	
	Landscaping	Allow	\$100,000.00	1	\$100,000	
£	Track work					\$712,000
	Ballasted Track Incl. Ballast and subballast	М	\$430.00	25,300	\$10,879,000	
	Turnouts, no. 15 with Conc. Ties Diamond Crossover, no. 15 with Conc. Ties	EA EA	\$140,000.00 \$600,000.00	43	\$6,020,000 \$1,200,000	-
	Heavy Duty Rubber Grade Crossing	Allow	\$500,000.00	1	\$500,000	
	Yard Electrical Work	-			-	\$18,599,000
	Site Lighting, Distribution, High Mast Poles	EA	\$35,000.00	105.00	\$3,675,000	
	Electrical service to yard 480v CCTV & Security System	Allow	\$500,000.00	1	\$500,000	
	Communication System	Allow Allow	\$400,000.00 \$400,000.00	1	\$400,000 \$400,000	
						\$4,975,000
8	Traction Power Substation	EA	\$5,000,000.00	1.0	\$5,000,000	
	OCS Incl. Hardware, Poles & Foundation	М	\$360.00	25,300	\$9,108,000	\$14,108,000
9	Train Control Yard Train Control	Allow	\$4,500,000.00	1	\$4,500,000	
10	Service and Inspection Facility Incl. Electrical & Mechanical Work					\$4,500,000
10	Service & Inspection Facility	M2	\$1,800.00	4,200	\$7,560,000	
	Inspection Pit	M M	\$2,300.00 \$945.00	840 840	\$1,932,000 \$793,800	
	Wheel Truer	M2	\$1,800.00	500	\$900,000	
	Wheel Shop Material Inventory & Distribution	M2 M2	\$1,600.00 \$1,600.00	6,300 6,300	\$10,080,000 \$10,080,000	
	Running Repair & Truck Shop	M2	\$1,800.00	13,200	\$23,760,000	
	Heavy Repair, Support Shop & Overhaul	M2	\$1,800.00	9,000	\$16,200,000	\$71,305,800
	Maintenance Shop Equipment, Tools and Supplies-					<b>\$11,000,000</b>
	Storage Equipment Dock Lifts	LS LS	\$280,000.00 \$110,000.00	1	\$280,000 \$110,000	
	Rail Car Spray Booth	LS	\$400,000.00	1	\$400,000	
	Shop Work Station Shop Equipment	LS LS	\$60,000.00 \$600,000.00	1	\$60,000 \$600,000	
	Sheet Metal Equipment	LS	\$110,000.00	1	\$110,000	
	Cleaning Equipment Steam Cleaner Pressure Washer	LS LS	\$80,000.00 \$40,000.00	1	\$80,000 \$40,000	
	Car Component Repair & Test Equipment	LS	\$250,000.00	1	\$250,000	
	Wheel Truing Machine Welding Equipment	Ea. LS	\$1,500,000.00 \$60,000.00	1	\$1,500,000 \$60,000	
	Battery Equipment	LS	\$25,000.00	1	\$25,000	
	Prefab. Storage Buildings Traveling Manlifts	LS LS	\$40,000.00 \$200,000.00	1	\$40,000 \$200,000	
	Material Lift	LS	\$30,000.00	1	\$30,000	
	Car Hoist System Potable car Hoist System	LS LS	\$1,200,000.00 \$210,000.00	1	\$1,200,000 \$210,000	
	Truck Repair Hoist	LS	\$400,000.00	1	\$400,000	
	Jacking Carriage Bridge Crane - 3ton Capacity	Ea. Ea	\$50,000.00 \$40,000.00	1 2	\$50,000 \$80,000	
	Bridge Crane - 10 ton Capacity	Ea	\$110,000.00	2	\$220,000	
	Monorails Jib Cranes- Various Capacity	Ea Ea.	\$35,000.00 \$20,000.00	3 6	\$105,000 \$120,000	
	Turntables	Ea.	\$60,000.00	10	\$600,000	
	Forklifts Tools & Supplies	Ea. Allow	\$35,000.00 \$200,000.00	4 1	\$140,000 \$200,000	
					,	\$7,110,000
	Environmental Mitigation Excluded					
	0.1=::					\$0
	Sub-Total  Mobilization & Indirect Field Cost		15%			\$247,670,000 \$37,150,500
	Subtotal- Construction Cost- Base (year 2003 dollars)		.570			\$284,820,000
	Contingencies Escalation to Midpoint of Construction- not included					
	Right of way Acquisition Subtotal- Construction Cost (Not Escalated)					
	Project Conceptual & Preliminary Engineering					
	Final Engineering Design Cost					
	Construction Management & Inspection Costs @ 10%					
	Field Changed Condition					
	Owner Administration & Engineering Total Estimated Project Cost					
	rotal Estimated Project Cost					

Exclusions:
Real Estate
Central Operating Control System
Escalation to Mid-point of Construction
Engineering, CM, Inspection & owner's cost of administration
Contingencies